Dkt. No.: OP-093000042

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A tetraode field emission display, comprising:

an anode plate, including a phosphor layer formed thereon;

a cathode plate, including an electron emission source layer aligned with the phosphor layer;

a mesh, including a gate layer facing the electron emission source, a converging ~~electrode plate facing the phosphor layer, an insulation layer sandwiched between the gate~~ layer and the converging electrode layer, and a plurality of apertures extending therethrough; and

a spacing glass plate extending between the anode plate and the converging electrode plate and having a plurality of through holes formed to be aligned with the apertures.

2. (Original) The display of Claim 1, further comprising an isolation wall or a spacer extending between the gate layer and the cathode plate.

3. (Original) The display of Claim 2, wherein the isolation wall is configured between the apertures.

4. (Currently amended) The display of Claim 1, ~~further comprising a second access unit under the first access unit within the receiving space~~ wherein larger through holes are formed to have each through hole cover more than one aperture.

5. (Original) The display of Claim 1, wherein the mesh further comprises an invalid region along a periphery of the converging electrode layer, and the invalid region includes a plurality of markings for alignment.

6. (Original) The display of Claim 1, wherein the apertures have inverse conical shapes.

7. (Original) The display of Claim 6, wherein the apertures opening at the gate layer with a gauge larger than a diagonal length of the electron emission source layer.

8. (Original) The display of Claim 1, wherein the apertures have sandglass shapes.

9. (Original) The display of Claim 8, wherein the apertures opening at the gate layer with a gauge larger than a diagonal length of the electron emission source layer.

10. (Original) The display of Claim 1, wherein the converging electrode layer has a potential lower than that of a drain potential applied to the gate layer.

11. (Original) The display of Claim 1, further comprising an isolation wall extending between the spacing glass plate and the anode plate.

12. (Currently amended) A tetraode field emission display, comprising:

an anode substrate on which a plurality of anode units is formed, each of the anode units includes an anode conductive layer and a phosphor layer formed on the anode conductive layer;

a cathode substrate on which a plurality of cathode units is formed, each of the cathode units includes a cathode conductive layer and an electron emission source layer formed on the cathode conductive layer;[[and]]

a mesh extending between the anode substrate and the cathode substrate, wherein the mesh includes a gate layer facing the cathode unit and a converging electrode layer plate facing the anode unit, and the mesh includes a plurality of apertures aligned with respective sets of anode and cathode units; and

a spacing glass plate extending between the anode plate and the converging electrode plate and having a plurality of through holes formed to be aligned with the apertures.

13. (Currently amended) The display of Claim 12, wherein the mesh further comprises an insulation layer sandwiched between the gate layer and the converging electrode ~~layer~~ plate.

14. (Original) The display of Claim 12, wherein the mesh is fabricated from a material with a thermal expansion coefficient substantially the same as that of the anode substrate and the cathode substrate.

15. (Original) The display of Claim 12, wherein the apertures opening at the gate layer with a diameter no smaller than a diagonal extent of the electron emission source layer.

16. (Withdrawn) A method of forming a tetraode field display, comprising:

forming an anode plate having a phosphor layer thereon;

forming a cathode plate having an electron emission source layer thereon; and

forming a mesh and disposing the mesh between the anode plate and the cathode plate, wherein the mesh includes a gate layer facing the cathode plate and a converging electrode plate facing the anode plate; and

installing spacing glass plate between the mesh and the anode plate.

17. (Withdrawn) The method of Claim 16, further comprising a step of forming an insulation layer sandwiched between the gate layer and the converging electrode layer.

18. (Withdrawn) The method of Claim 16, wherein the step of forming the mesh comprises:

fabricating the converging electrode plate from a metal conductive material;

forming an insulation layer on the converging electrode plate; and

forming the gate layer from a conductive material on the insulation layer.

19. (Withdrawn) The method of Claim 18, further comprising a step of forming a plurality of apertures extending through the mesh.

20. (Withdrawn) The method of Claim 18, wherein the metal conductive material has a thermal coefficient substantially the same as that of the anode plate and the cathode plate.

21. (Withdrawn) The method of Claim 18, wherein the metal conductive material includes a composite plate of iron, nickel and carbon.

22. (Withdrawn) The method of Claim 18, wherein the step of forming the insulation layer includes a printing or a photolithography patterning process.

23. (Withdrawn) The method of Claim 18, wherein the step of forming the gate layer includes printing, sputtering, evaporation plating or photolithography patterning process.

24. (New) The display of Claim 1, wherein the spacing glass plate further comprises an invalid region along a periphery thereof, and the invalid region includes a plurality of markings for alignment.

25. (New) The display of Claim 12, wherein larger through holes are formed to have each through hole cover the range of the apertures of two or more sets of anode and cathode units.